



LISTING OF CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claim 1 (Previously Presented): A semiconductor device, comprising:

a semiconductor layer which includes a first semiconductor region of a first conductivity type, a base region of a second conductivity type formed above the first semiconductor region, and a plurality of second semiconductor regions of the first conductivity type formed on the base region;

a gate wiring which is formed on the semiconductor layer via a first insulating film;

a plurality of main electrodes which are electrically connected to the plurality of second semiconductor regions and which are insulated from the gate wiring, wherein the gate wiring is arranged between the main electrodes; and

a second insulating film which is formed on an upper surface of the gate wiring; and

a connecting plate which is directly connected onto upper surfaces of the main electrodes, wherein the main electrodes are in contact with a contact region of the connecting plate, and, in an area under the contact region of the connecting plate, the upper surfaces of the main electrodes are higher than the highest portion of an uppermost surface of the gate wiring, wherein the connecting plate is connected to a lead frame.

Claim 2 (Withdrawn): The semiconductor device according to claim 1, wherein uppermost surfaces of the plurality of main electrodes are a metal.

Claim 3 (Canceled).

Claim 4 (Original): The semiconductor device according to claim 1, wherein the main electrodes are formed of a plurality of metal layers, and a second insulating film extends between the plurality of metal layers.

Claim 5 (Original): The semiconductor device according to claim 1, wherein the plurality of main electrodes are formed apart from the gate wiring with a gap therebetween.

Claim 6 (Previously Presented): A semiconductor device, comprising:

- a semiconductor layer which includes a first semiconductor region of a first conductivity type, a base region of a second conductivity type formed above the first semiconductor region, and a cell forming region;
- at least one main electrode which is electrically connected to a second semiconductor region of the first conductivity type in the cell forming region and which is formed in the cell forming region on the base region of the semiconductor layer;
- a first gate electrode which is formed in the cell forming region and controls continuity between the first semiconductor region and the second semiconductor region;
- a gate wiring which is formed on the semiconductor layer via a first insulating film and which leads out the first gate electrode to an outer peripheral region of the cell forming region; and
- a second insulating film which is formed on an upper surface of the gate wiring; and
- a first connecting plate which is directly connected onto an upper surface of the main electrode, wherein the main electrode is in contact with a contact region of the first connecting plate, and, in an area under the contact region of the first connecting plate, the upper surface of the main electrode is higher than the highest portion of an uppermost surface of the gate wiring, wherein the first connecting plate is connected to a lead frame.

Claim 7 (Withdrawn): The semiconductor device according to claim 6, wherein an uppermost surface of the main electrode is a metal.

Claim 8 (Canceled).

Claim 9 (Withdrawn): The semiconductor device according to claim 6, wherein the main electrode comprises a first main electrode layer and a second main electrode layer which is formed on the first main electrode layer.

Claims 10-16 (Canceled).

Claim 17 (Withdrawn): The semiconductor device according to claim 43, wherein the first main electrode and the second main electrode are formed apart from the gate wiring with a gap therebetween.

Claim 18 (Canceled).

Claim 19 (Withdrawn): The semiconductor device according to claim 6, wherein the gate wiring comprises a first layer which is formed on the semiconductor layer and a second metal layer which is formed on the first layer.

Claim 20 (Withdrawn): The semiconductor device according to claim 19, wherein the second metal layer contains aluminum (Al).

Claim 21 (Previously Presented): The semiconductor device according to claim 6, wherein the upper surface of the main electrode and the first connecting plate contain aluminum (Al).

Claim 22 (Canceled).

Claim 23 (Previously Presented): The semiconductor device according to claim 6, wherein the first connecting plate is connected to the main electrode by ultrasonic bonding.

Claim 24 (Currently Amended): A semiconductor device, comprising:

- a first semiconductor layer of a first conductivity type;
- a second semiconductor layer of a second conductivity type including a base region of the second conductivity type which is formed on above the first semiconductor layer;
- a first semiconductor region of the first conductivity type which is formed in a first cell forming region in the second semiconductor layer;
- a second semiconductor region of the first conductivity type which is formed in a second cell forming region in the second semiconductor layer;
- a first gate electrode which is formed in the first cell forming region and controls continuity between the first semiconductor region and the first semiconductor layer;
- a second gate electrode which is formed in the second cell forming region and controls continuity between the second semiconductor region and the first semiconductor layer;
- a first main electrode which is electrically connected to the first semiconductor region and formed in the first cell forming region on the second semiconductor layer;

a second main electrode which is electrically connected to the second semiconductor region and formed in the second cell forming region on the second semiconductor layer;

a gate wiring which is formed on the second semiconductor layer between the first main electrode and the second main electrode via a first insulating film and which leads out the first and second gate electrodes to an outer peripheral region of the first and second cell forming regions;

a second insulating film which is formed on an upper surface of the gate wiring; and

a first connecting plate which is directly connected onto upper surfaces of the first main electrode and the second main electrode, wherein the first main electrode and the second main electrode are in contact with a contact region of the first connecting plate, and, in an area under the contact region of the first connecting plate, the upper surface of the first main electrode and the upper surface of the second main electrode are higher than the highest portion of an uppermost surface of the gate wiring, wherein the first connecting plate is connected to a lead frame.

Claim 25 (Withdrawn): The semiconductor device according to claim 24, wherein the upper surface of the first main electrode and the upper surface of the second main electrode are part of a common metal layer.

Claim 26 (Canceled).

Claim 27 (Withdrawn): The semiconductor device according to claim 24, wherein the first main electrode comprises a first main electrode layer and a second main electrode layer which is formed on the first main electrode layer.

Claims 28-34 (Canceled).

Claim 35 (Withdrawn): The semiconductor device according to claim 25, wherein the first main electrode and the second main electrode are formed apart from the gate wiring with a gap therebetween.

Claim 36 (Canceled).

Claim 37 (Withdrawn): The semiconductor device according to claim 24, wherein the gate wiring comprises a first layer which is formed on the second semiconductor layer and a second metal layer which is formed on the first layer.

Claim 38 (Withdrawn): The semiconductor device according to claim 37, wherein the second metal layer contains aluminum (Al).

Claim 39 (Previously Presented): The semiconductor device according to claim 24, wherein the upper surface of the first main electrode, the upper surface of the second main electrode, and the first connecting plate contain aluminum (Al).

Claim 40 (Canceled).

Claim 41 (Original): The semiconductor device according to claim 24, wherein the first connecting plate is connected to the first main electrode and the second main electrode by ultrasonic bonding.

Claim 42 (Canceled).

Claim 43 (Previously Presented): The semiconductor device according to claim 6, wherein the at least one main electrode includes a first main electrode and a second main electrode and the gate wiring is one of gate wiring layers and the gate wiring is the uppermost layer of the gate wiring layers under an area in which the first connecting plate is connected to the first main electrode and the second main electrode.

Claim 44 (Previously Presented): The semiconductor device according to claim 6, wherein the gate wiring is formed of aluminum (Al).

Claim 45 (Previously Presented): The semiconductor device according to claim 1, wherein the main electrodes comprise a first main electrode layer and a second main electrode layer which is formed on the first main electrode layer.

Claim 46 (Previously Presented): The semiconductor device according to claim 45, wherein the second main electrode is formed on the second insulating film.

Claim 47 (Previously Presented): The semiconductor device according to claim 45, wherein the second main electrode is thicker than the first main electrode layer.

Claim 48 (Withdrawn): The semiconductor device according to claim 9, wherein the second main electrode layer is formed on the second insulating film.

Claim 49 (Withdrawn): The semiconductor device according to claim 9, wherein the second main electrode layer is thicker than the first main electrode layer.

Claim 50 (Withdrawn): The semiconductor device according to claim 27, wherein the second main electrode layer is formed on the second insulating film.

Claim 51 (Withdrawn): The semiconductor device according to claim 27, wherein the second main electrode layer is thicker than the first main electrode layer.

Claim 52 (New): The semiconductor device according to claim 1, wherein there is a space between the second insulating film and the connecting plate.

Claim 53 (New): The semiconductor device according to claim 6, wherein there is a space between the second insulating film and the connecting plate.

Claim 54 (New): The semiconductor device according to claim 24, wherein there is a space between the second insulating film and the connecting plate.